ROOFING SHINGLES SELECTOR
AND FIXING GUIDE

SMARTER UP TOP

EYE-CATCHING ROOF PROTECTION

RUBEROID
BUILDING PRODUCTS



DURABLE, WATERPROOF AND BEAUTIFUL

Protecting what's under your roof from the elements is simplicity itself with Ruberoid Roofing Shingles. Roofing Shingles make ideal roofing; they are attractive, easy to install and are perfect for use on a range of buildings. Durable and aesthetic, they can be used on new building projects or for refurbishing everything from stables, gazebos, beach huts, chalets, summer-houses and sports pavilions to garden buildings. They can also be used as vertical cladding.

Roofing Shingles are suitable for use on any building, temporary or permanent, domestic or commercial, habitable or recreational with a roof pitch from 15° to vertical.

The simplest of makeovers can be completed by following the fixing instructions. Roofing Shingles provide a long lasting, highly decorative, weatherproof roof finish in a variety of pitched roof situations.

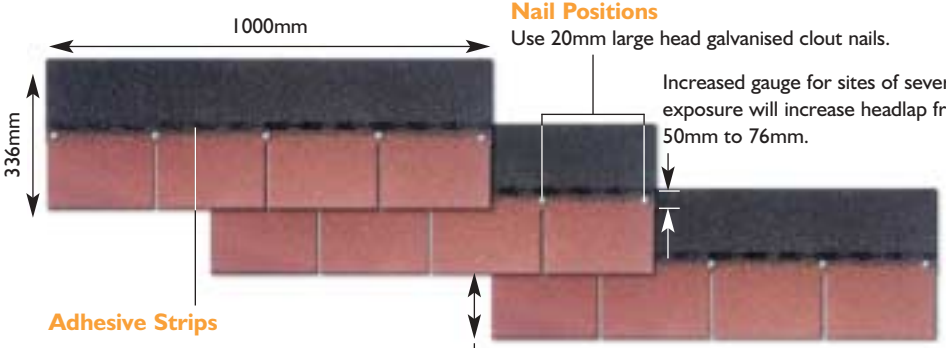
Technology at its best

Roofing Shingles are supplied in packs of individual strips, available in two shapes: Armourglass Square Butt or Armourshield Hexagonal. They consist of a glass fibre base, coated with oxidised bitumen and surfaced with attractive coloured mineral granules.

Benefits

- Long lasting
- Economical
- Attractive appearance
- Choice of colours
- Choice of shapes
- Easy to install
- Lightweight
- Proven waterproofing performance
- SAA fire rating
- Non-rotting glass fibre base
- UV resistant decorative mineral surfacing
- Complies with European Standard EN544. Class1

Armourglass Square Butt Roofing Shingles



Nail Positions

Use 20mm large head galvanised clout nails.

Increased gauge for sites of severe exposure will increase headlap from 50mm to 76mm.

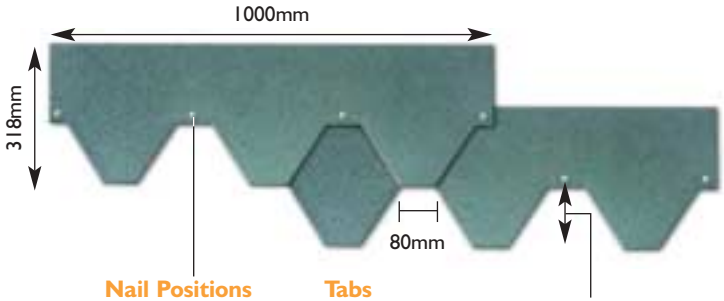
Adhesive Strips

The tabs will self bond in summer conditions. In colder conditions the bond will take longer to be effective. Therefore blobs of Ruberoid Lap Mastic should be applied below each corner of the tabs.

Tabs

Gauge 143mm (reduce to 130mm on sites of severe exposure).

Armourshield Hexagonal Roofing Shingles



Nail Positions

Tabs

135mm to the weather with a fixed headlap of 50mm. If greater headlap is required for sites of severe exposure, use Square Butt Shingles only.

	Pack Contents			Strips		
Roofing Shingles	**Roof area coverage**	**Weight**	**Number of strips**	**Length**	**Width**	**Tabs**
Armourglass Square Butt	3.0m²	32.4kg	21	1m	336mm	4
Armourshield Hexagonal	3.0m²	28.5kg	22	1m	318mm	3

Ruberoid Lap Mastic	Cartridge size 310ml - Allow 1½ cartridges per pack of shingles to cover nail heads. Where sites are subject to severe exposure, allow an additional 2 cartridges per pack of square butt shingles for the blobs of adhesive at the corners tabs
Roofing Felt Adhesive	IKOpro or Aquaplan Roofing Felt Adhesive: 2.5 litre, 5 litre, 25 litre tins Fully bonding coverage (for bonding Glasphalt 3B at valley shingles), allow 5 litres per 8m²

	Roll Length	Roll Width	Roll Weight
Glasphalt 35 747 Type 3B Underlay	20m	1m	36kg

Colour selector on inside back cover

Helpful fixing guidelines

For standard conditions and roof slopes (15° to 85° pitch):

- Place one fixing nail 25mm from each end and one fixing nail directly above the centre line of each cut-out.
- All fixings should be on a line 25mm above the top of the cut-out. Proper fixing increases the strength and wind resistance of the shingle roof; so do not skimp on fixings. If a fixing will not enter the decking, use another in a nearby location.
- In very severe exposure areas and on steep roofs (60-85° pitch) use 8 nails per shingle, placing one fixing nail 25mm from each end and 2 nails per cut-out, spaced 25mm left and right above each cut-out.
- In severe weather location areas a small blob of Lap Mastic or Roofing Felt Adhesive must be applied beneath the corners of each tab and over each nail head, for additional security before the heat of the sun activates the self-seal patches.
- Always leave a 2mm gap between the ends of individual shingles, to allow for minor adjustments in alignment.
- Where applicable Roofing Shingles should be installed in accordance with BS5534.2003 Code of practice for slating and tiling (including shingles).

Understand Your Roof Pitch

- Knowing your roof pitch - the angle at which your roof slopes or pitches - enables you to best plan your project and determine the correct layers of underlay membrane to use.
- Roofing Shingles are designed for application on pitched roofs 15° and over, both habitable and non habitable buildings.
- For non-habitable buildings of all roof pitches, a single layer of Glasphalt 3B should be used as an underlay. This is laid parallel to the eaves with a 75mm side overlap and 100mm end laps. It is fixed using large headed clout nails at 300mm C/C along the lower edge and down all sloping sides.
- For habitable buildings with a roof laid to pitch of 15° to 20° two layers of Glasphalt 3B must be used as preparation before fixing the shingles. The first is laid as above. The upper layer is laid staggered to the first and fully bonded with roofing felt adhesive.
- For habitable buildings with a roof laid to pitch of 21° and above a single layer of Glasphalt 3B must be used as an underlay.

Step 1 Prepare the roof decking on to which you are fixing the shingles

Check that the roof decking of your structure is sound, clean, dry and stable before starting.

Step 2 Fix the felt underlay

It is recommended that a suitable felt underlay is placed underneath the final top covering – whether this is Roofing Shingles or just shed or garage felt.

Starting at the eaves and working up the slope of the roof, unroll a suitable bitumen felt underlay, we recommend a BS 747 Type 3B. Keep the underlay parallel to the roof eaves. Tack into position with large headed galvanised clout nails.

The underlay should extend beyond the roof and turn down the external face of the roof edge. Allow overlaps in the underlay pieces of 75mm at the side and 100mm at the end.

Step 3 Make and fix the shingles strips for sloping verges

First make the shingle strips for the sloping verges. When using the Square Butt Shingles cut off the tabs from a single shingles strip to create the sloping "verge-edging" pieces. Cut through the shingle from the back, and cut on to a board so as not to damage the knife blade or anything underneath. These "verge-edging" pieces should be applied first and positioned extending 50mm beyond the edge of the roof.

If a barge board is present on a garden building, it should be removed and reinstated when the shingles have been installed.

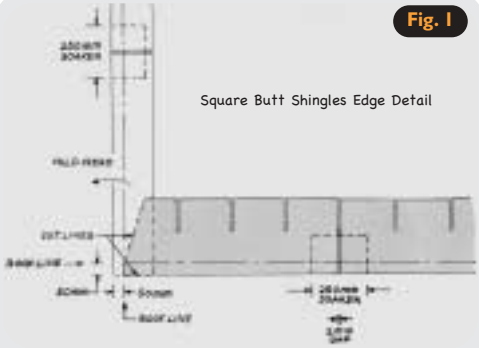
Gently fold these verge pieces over the roof edge, taking care to warm the material first in cold conditions so it is more pliable, nailing at 50mm centres. At the corners cut the Roofing Shingles to allow an overlap when folded around the corner and nail this in position.

Step 4 Position the eaves shingle strips

For the eaves sections use a full shingle strip, turned with the tabs facing up the roof. Position these strips overhanging the roof edge by 50mm. Starting at the left hand eaves corner, place the reversed shingle on to the roof extending 50mm beyond both edges (for ease of detailing at the corner, cut away the edge at an angle – as seen in **Fig. 1**). At the joints between individual shingle strips, use the tabs (that were previously cut to make the "verge edging") as soaker pieces.

Place the eaves strips in position and gently fold over the roof edge and nail into final position. Ideally nails should be placed 25mm from each end, just below the line of the cut-outs, with 3 more nails on a horizontal line between the first two immediately below each cut-out. Holding the shingle in position with one hand, gently fold the overhang over the edge of the roof, extending beyond the underside of the decking to form a drip edge. Once folded, nail fix at 50mm centres.

Fig. 1



Square Butt Shingles Edge Detail

Continue along the eaves of the roof in the same manner, using the tabs previously cut off of the shingles for the sloping verge as soaker pieces between each shingle strip.

You should cut away the corner of the shingle at an angle to prevent a build-up of laps.

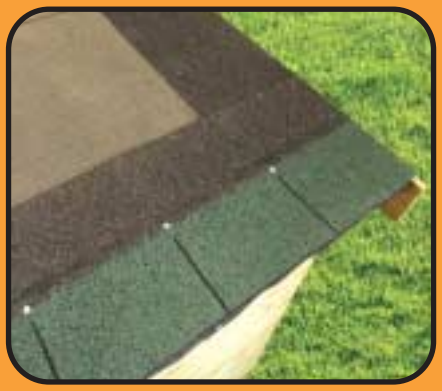
Now all your perimeter detailing should be complete, verges, corners and eaves.

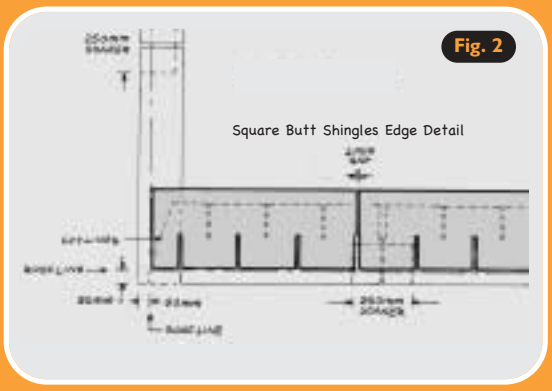
Step 5 Alignment of the first shingle course

Now set out the position for the first shingle course using either a chalk line or straight edge approximately 5mm from the roof edge.

Step 6 Position and fix the first shingle course

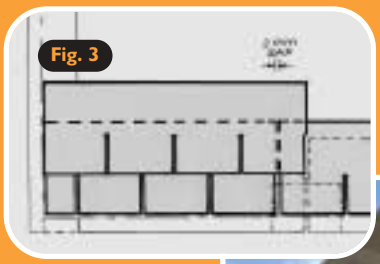
Trim half, that is 125mm from the verge tab of the first shingle course (row), and continue with full shingles for the rest of the course. Leave a 2mm gap between shingle strips. **See Fig.2.** Repeat this for all odd numbered courses.





Step 7 Position and fix the higher courses

Use whole shingle strips for the placing of the second and all further even numbered courses creating a staggered affect as shown in the illustration. **See Fig.3.**



For normal fixing, shingles should be nailed 25mm above each cut-out and 25mm in from each edge.

Continue to fix the shingle strips up the roof, creating a staggered effect. The bottom edge should just overlap the top of the cut-outs of the underlying shingles so that there will be approximately 145mm of each shingle exposed.

Roofing adhesives can be used sparingly, covering the nail heads of individual fixing points and in the corner of each tab. This also gives added security in exposed locations.

Step 8 Cut roofing shingles to create ridge shingles

To finish the roof we make the ridge capping. For the ridge, Roofing Shingles must be cut from the shingle strips, inline with the cut-outs. **See Fig.4.**

Four ridge shingles can be cut from each shingle strip, remember to always cut from the back or smooth side.

To assist in making the ridge shingles lay flat, make secondary cut lines as shown in the illustration.

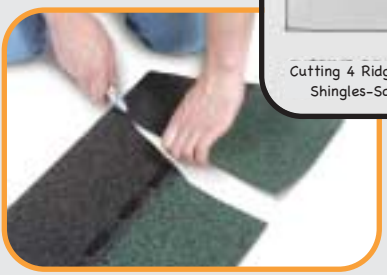
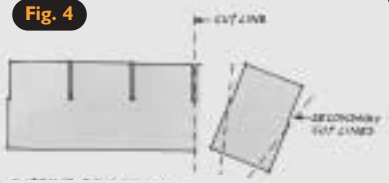


Fig. 4



Cutting 4 Ridge and Valley Shingles-Square Butt

Step 9 Alignment of the ridge shingles

Use a chalk-line or straight edge to ensure the correct positioning of the individual ridge shingles.

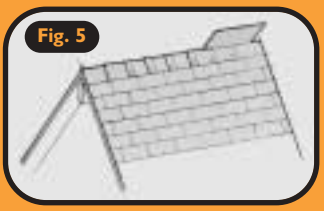
Step 10 Position and fixing of ridge shingles

On the ridge of the roof each ridge shingle should overlap the previous one, as shown, exposing approximately 145mm.

Step 11 Seal the lap joints in the ridge shingles

A bead of Lap Mastic or Roofing Felt Adhesive should be used to seal the joint. Bed down onto 25mm strips of Lap Mastic or Roofing Felt adhesive to seal the open ends.

Fig. 5



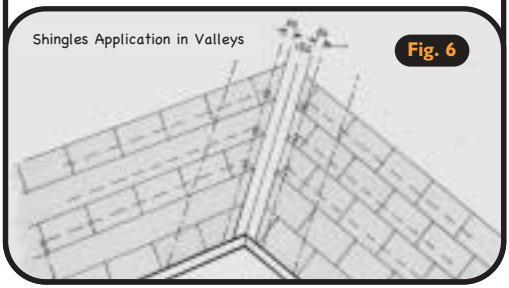
Step 12 Position and fix of the ridge shingles

Continue to fix the ridge shingles along the roof ridge, bending lengthways down the centre to achieve equal exposure on both sides of the ridge as shown in **Fig. 5.**

In cold weather remember to warm the shingles before folding. Seal the lap and nail fixing on both sides.

Using Roofing Shingles to cover valley sections of a roof

Valley detailing sections must be carried out before the main shingle roof is completed. Again, it is recommended that a 500mm wide strip of Glasphalt 3B Sand Underlay is fully bonded with Roofing Felt Adhesive into the valley, prior to fixing the shingles. As with the ridge section, to detail the valley, cut valley shingles from standard 4 or 3 tab shingles at the cut-out, and apply as shown in **Fig. 6.** Bed down onto 25mm wide strips of Lap Mastic or Roofing Felt Adhesive to seal the open ends. Leave exposed 143mm of the shingle tab and nail on each side of the valley. Valley shingles should be folded lengthways down the centre of the valley and dressed equally to each side.



Step 13 The Completed Job

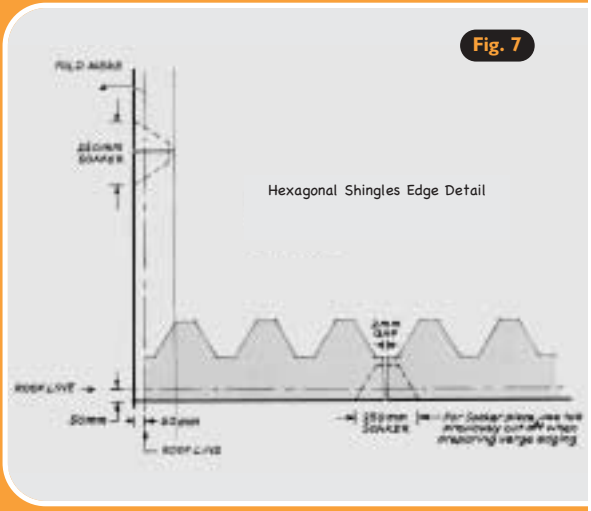
Ruberoid Roofing Shingles provide a long lasting attractive decorated waterproofing finish to a wide variety of garden buildings.

Fixing Hexagonal Roofing Shingles - A few differences

Using Hexagonal Shingles is similar, but differences arise because unlike the Square Butt Shingles, Hexagonal Roofing Shingles have an adhesive surface on the reverse of each tab, protected by removable film.

Prepare your roof deck with underlay as detailed for Square Butt Roofing Shingles. Creating the "verge-edging" pieces means cutting off the hexagonal tabs from a shingles strip and removing the release film.

When positioning the verge edging piece, it is again important to allow a 50mm overhang at all edges. Remember to use a full shingle, turned with the tabs facing up the roof, overhanging the roof edge by 50mm. At joints between individual shingles strips, use one of the 3 hexagonal tabs (that has been cut off when you made the verge edging) as a soaker piece as shown in **Fig. 7.**



Folding the Eaves Roofing Shingle

Now gently fold the verge pieces over the roof edge, taking care to warm the shingles in cold conditions. As shown correctly position the eaves shingle, gently fold over the roof edge and nail in position, cutting the corner details allowing overlaps to be folded around the corners before nailing into position.

Removal of the release backing

Before applying any Hexagonal Roofing Shingles always remove the release sheet backing to expose the heat activated adhesive coating. But do not remove the backing until you are ready to fix the shingle.

Fixing Hexagonal Roofing Shingles - A few differences

Alignment of the first shingle course

In order to position and fix the first shingle course, trim 125mm from the verge tab of the first shingle course. Repeat this for all odd numbered courses.

Set out the position for the first shingle course so that the edge of the shingle strip is aligned 5mm from the edge of the roof. Ensure that the shingle cut-out of the first shingle course aligns with the reversed shingle tab from the eaves shingle strip. Position and fix the higher roofing shingles courses.

Next position and fix subsequent courses

For the second course, continue with full shingles strips for the rest of the course. Use whole shingles for the second and all even numbered courses. For normal fixing, shingles should be nailed 25mm in from each edge and above each cut-out, along a line 25mm above the cut-outs.

Now for the remaining courses, simply continue to fix the shingle strips up the roof, creating a staggered effect, as seen here. The bottom edge should just overlap the top of the cut-outs of the underlying shingles so that there will be approximately 135mm of each shingle exposed.

Use Lap Mastic or Roofing Felt Adhesive to cover the nail heads of individual fixing points and in the corner of each tab, for added security in exposed locations, prior to heat activation of the tab coating.

Finally to finish the roof ridge capping, the ridge shingles must be cut from the shingle strips, inline with the centre of the cut-outs. Three ridge shingles can be cut from each Hexagonal Shingle strip.These ridge shingles should be nailed both sides of the ridge apex and nail fixings covered by the next.

The Completed Job

Ruberoid Hexagonal Roofing Shingles provide a long lasting attractive decorative waterproofing finish to a wide variety of garden buildings.

ADDITIONAL INFORMATION

Roof Ventilation

When Roofing Shingles are used on heated buildings or insulated roofs, ventilation of the void space must be provided.

For cold roofs ventilation should be at least equal to continuous strip 10mm wide (Ref: BS 5534:2003).

Additional Weather Considerations

Whilst Roofing Shingles are designed for application on pitched roofs of 15° and over, in severe exposed locations it is recommended that the roof pitch should be a minimum of 30°. In areas of very severe exposure such as coastal locations, use Square Butt Shingles only. The shingle gauge should also be reduced from 143mm to 130mm.

Exposure categories as defined in BS5628: Part 3

Fire Designation

SAA fire rating (BS 476: Part 3:2004).

Armourglass and Armourshield Roofing Shingles nailed to the substrates listed below achieve an external SAA rating when tested to BS 476:Part 3:2004 as required by the current building regulations.

Building Regulations

Armourglass and Armourshield Roofing Shingles comply with Building Regulations: England, Wales, Scotland and Northern Ireland.

Suitable Decking

The following decking materials are suitable for the fixing of roof shingles.

- Exterior grade plywood (18mm)
- OSB 3 Conditioned Boarding (18mm)
- Plain edge timber boarding (25mm)

Note: Chipboard (including pre-felted) is not recommended as decking.

Storage

Store shingles inside a ventilated area. Do not stack Square Butt Shingles more than 16 packs high and Hexagonal Shingles more than 14 packs high. Pallet loads must not be stacked directly upon each other.

Store away from direct heat and sunlight.

In cold weather, store packs inside before use and gently warm before folding.

A roofing shingle pack weighs between 28.5kg and 32.4kg depending on the product type. The usual precautions should be taken when handling heavy objects.

Handling

Handle Roofing Shingle strips carefully in cold weather to prevent cracking or breaking, and in hot weather to protect edges. Do not drop packs on their edges.

Fixing

To improve adhesion of the shingles strips, the Armourglass Square Butt Shingles have a heat sensitive bituminous strip on the top side. The Armourshield Hexagonal Shingles have an adhesive surface on the reverse of each tab, protected with a removable film.

Square Butt Roofing Shingles

The polythene film strip on the back of the Square Butt Shingles prevents them sticking together during transit and storage. Do not attempt to remove the film.

Hexagonal Roofing Shingles

The release sheet must be removed from the back of the Hexagonal Shingles.

Roofing Shingles Colour Selector

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RUBEROID
BUILDING PRODUCTS

RUBEROID 100 YEARS 1906-2006 — A WATERTIGHT REASON FOR CHOOSING RUBEROID

IKO Setting the standard in roofing and waterproofing